

Abstract

Radar transceiver for microwave and millimeter wave applications

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This invention concerns a transceiver module (send/receive module) for microwaves and millimeter wave applications or associated module platform concepts for interconnecting partial modules to make an overall module, which is particularly suitable for mass production.

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The transceiver module contains a) one or more individual electronic components, which in particular comprise active circuit components of an (preferably voltage-controlled) oscillator, a mixer and a frequency divider, and b) a substrate with a multilayer structure and integrated circuit elements, in particular a hybrid ring of the mixer and a resonant circuit of the voltage-controlled oscillator. The individual electronic components are located on the top side of the substrate. This invention makes it possible to combine the send and receive functions in a compact component with a three-dimensional integration of the high frequency components.

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Figure 2